

## ABSTRACT

An improved method for adaptively cancelling acoustic feedback in hearing aids and other audio amplification devices. Feedback cancellation is limited to a frequency band that encompasses all unstable frequencies. By limiting the bandwidth of the feedback cancellation  
5 signal, the distortion due to the adaptive filter is minimized and limited only to the unstable feedback regions. A relatively simple signal processing algorithm is used to produce highly effective results with minimal signal distortion.

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